

REMARKS/ARGUMENTS

Information Disclosure Statement

Submitted herewith as a separate paper is an Information Disclosure Statement citing a reference [3] listed on page 15 of the specification, in accordance with the Examiner's suggestion. Applicant hereby respectfully requests acknowledgment of the reference.

Regarding Amendments

On page 3, line 3 of the specification has been amended to correct typographical error in accordance with the Examiner's suggestion. The specification has also been amended to more clearly describe the "technological system" in accordance with the Examiner's suggestion. These corrections are of a clerical nature and do not add "new matter".

Claims 1-3 and 5-6 have been amended to further particularly point out and distinctly claim subject matter regarded as the invention. The amendment also contains minor changes of a clerical nature. New claims 7-8 have been added by this amendment and also particularly point out and distinctly claim subject matter regarded as the invention. No "new matter" has been added by the amendment.

Claim Objections

Claim 3 stands objected to as containing a grammatical error. The claim has been amended to provide the missing text of --be done-- after “can” on line 24. With this amendment, withdrawal of the objection is respectfully requested.

The 35 U.S.C. §112 Rejection, Second Paragraph

Claims 3 and 5-6 stand rejected under 35 U.S.C. §112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter applicant regards as the invention.

Claim 3 has been amended to specify a temperature range which is lower than a temperature that damages the device. Claims 5-6 have been amended to more clearly recite the feature device size of the process technology, in accordance with the Examiner’s suggestion. With this amendment it is respectfully submitted the claims satisfy the statutory requirements.

The 35 U.S.C. §102 Rejection

Claims 1-2 stand rejected under 35 U.S.C. §102(b) as being allegedly anticipated by Wei et al. (U.S. Pat. No. 5,435,608). This rejection is respectfully traversed.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.”

Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ 2d 1051,

1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 869 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). *See also*, M.P.E.P. §2131.

Claim 1 defines an X-radiation imagery device comprising at least one detection matrix made of a semiconducting material comprising pixels to convert incident X-photons into electric charges, and an electric charges reading panel comprising several electronic devices. Each electronic device is integrated by pixel, and characterized in that each detecting matrix includes a detection layer made of a continuous layer of semiconducting material deposited in vapour phase on the electric charges reading panel, as recited in claim 1, as amended.

Both of the claimed invention and that described in Wei are related to a device which receives electrons, processes them pixel by pixel, organizes them on a matrix, and then reads them. However, Wei does not disclose the claimed invention for the following reasons:

The Examiner alleges that the description of column 5, line 60 to column 6, line 10 in Wei discloses the detecting matrix that includes a detection layer made of a continuous layer of semiconducting material deposited in vapour phase on the electric charges reading panel as recited in claim 1. Especially, the Examiner equates Wei's semiconductor material layer **154** with the claimed detection layer. However, in Wei, as shown in FIG. 1f thereof, the pixel **110** includes a TFT (thin film transistor) switch **150**

and a photo detecting island (photo diode) **130** separated from the TFT switch **150**. The TFT switch **150** has the gate electrode **122** and drain/source electrodes **162** and **165**, and is addressed by the scan line **125** and the address line **165** (see FIG. 2 of Wei). As is clearly shown in FIG. 1c of Wei, the semiconductor material layer **154** is part of TFT body **152** of the switch **150**, but not part of the photo detecting island **130**. Therefore, although the alleged semiconductor material layer **154** is formed within the pixel **110**, it is not a detection layer as claimed.

In addition, the photosensor island **130** has a multi-layered structure including an n+ amorphous silicon layer **132**, a layer of intrinsic amorphous silicon (a-Si) **134**, and a p+ amorphous silicon layer **136** (FIG. 1b, column 4, lines 47- 53 of Wei). Thus, Wei's photosensor is a lamination of different photosensing materials, and thus Wei does not disclose a *continuous* layer of semiconducting material deposited in vapour phase on the electric charges reading panel, as recited in claim 1.

Claim 2, as amended, defines a process for making an X-radiation imagery device comprising at least one detecting matrix made of a semiconducting material, and includes substantially the same distinctive features as claim 1.

Accordingly, it is respectfully requested that the rejection of claims based on Wei be withdrawn. In view of the foregoing, it is respectfully asserted that the claims are now in condition for allowance.

The 35 U.S.C. §103 Rejection

Claims 3 and 5-6 stand rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Wei. In addition, claim 4 stands rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over and Wei in view of Spartiotis (GB 2 319 394).

This rejection is respectfully traversed.

According to M.P.E.P. §2143,

To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure.

As discussed above, the primary reference Wei fails to anticipate the distinctive features of independent claims 1 and 2. In addition, the secondary reference Spartiotis is only relied on for a specific semiconducting material and does not disclose or suggest the distinctive features of the claimed invention. Claims 3 and 5-6 depend from claim 2, and thus include the limitations of claim 2. The argument set forth above is equally applicable here. The base claims being allowable, the dependent claims must also be allowable at least for the same reasons.

In view of the foregoing, it is respectfully asserted that the claims are now in condition for allowance.

Request for Allowance

It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited.

If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

Respectfully submitted,
THELEN REID & PRIEST, LLP

Dated: November 7, 2003



Masako Ando

Limited Recognition under 37 CFR §10.9(b)

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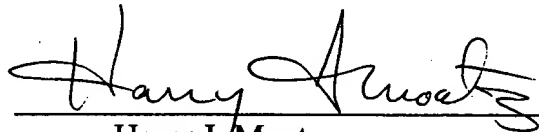
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Expires: January 1, 2004



Harry I. Moatz
Director of Enrollment and Discipline